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**United States Patent** [19]

Meloan et al.

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[54] **PEPTIDE, IMMUNOGENIC COMPOSITION AND VACCINE OR MEDICAL PREPARATION, A METHOD TO IMMUNISE ANIMALS AGAINST THE HORMONE LHRH, AND ANALOGS OF THE LHRH TANDEM REPEAT PEPTIDE AND THEIR USE AS VACCINE**

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[52] U.S. Cl. .... 514/13; 530/402; 530/313; 424/185.1

[58] Field of Search ..... 514/13, 11, 10; 530/300, 313, 326, 402; 424/185.1

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## [57] ABSTRACT

The invention relates to a modified tandem LHRH-peptide vaccine preparation in which the amino acid glycine at position (6) of one or both LHRH decapeptides that constitute the tandem unit is substituted by a dextrorotatory amino acid that contains a side chain to which a carrier compound can be coupled. In addition, the tandem LHRH-peptide can be brought into a tandem-dimer form which is also suitable for producing a vaccine that is effective against LHRH (luteinizing hormone releasing hormone) also referred to as GnRH (gonadotropin-releasing hormone), for immunological castration, to inhibit or affect reproductive functions or to affect behaviour in vertebrates in general and in domesticated animals and man in particular.

15 Claims, No Drawings